

## WEST Search History

DATE: Tuesday, August 27, 2002

Set Name   Query  
side by side

Hit Count   Set Name  
result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L3	L2 same (ph or acidic)	29	L3
L2	L1 same (produc\$ or prepar\$ or make)	395	L2
L1	microorganism near10 (glutamic or glutamate)	464	L1

END OF SEARCH HISTORY

Attachment  
to FAOY  
paper # 18

### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)  
Trying 31060000009999...Open

DIALOG INFORMATION SERVICES

PLEASE LOGON:

\*\*\*\*\* HHHHHHHH SSSSSSS?

### Status: Signing onto Dialog

\*\*\*\*\*

ENTER PASSWORD:

\*\*\*\*\* HHHHHHHH SSSSSSS? \*\*\*\*\*

Welcome to DIALOG

### Status: Connected

Dialog level 02.08.23D

Last logoff: 19aug02 14:21:55

Logon file001 27aug02 09:38:52

\*\*\* ANNOUNCEMENT \*\*\*

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--File 990 - NewsRoom now contains May 2002 to present records.

File 993 - NewsRoom archive contains 2002 records from January 2002-April 2002. To search all 2002 records, BEGIN 990,993.

\*\*\*

--Alerts has been enhanced to allow a single Alert profile to be stored and run against multiple files. Duplicate removal is available across files and for up to 12 months. The Alert may be run according to the file's update frequency or according to a custom calendar-based schedule. There are no additional prices for these enhanced features. See HELP ALERT for more information.

\*\*\*

--U.S. Patents Fulltext (File 654) has been redesigned with new search and display features. See HELP NEWS 654 for information.

\*\*\*

--Dialog NewsRoom is now available. BEGIN NEWSROOM to use the files in a OneSearch. See NEW FILES RELEASED (below) for individual file numbers.

\*\*\*

--Connect Time joins DialUnits as pricing options on Dialog. See HELP CONNECT for information.

\*\*\*

--CLAIMS/US Patents (Files 340,341, 942) have been enhanced with both application and grant publication level in a single record. See HELP NEWS 340 for information.

\*\*\*

--SourceOne patents are now delivered to your email inbox as PDF replacing TIFF delivery. See HELP SOURCE1 for more information.

\*\*\*

--Important news for public and academic libraries. See HELP LIBRARY for more information.

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--Important Notice to Freelance Authors--  
See HELP FREELANCE for more information

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For information about the access to file 43 please see Help News43.

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NEW FILES RELEASED

\*\*\*Dialog NewsRoom - Current 3-4 months (File 990)

\*\*\*Dialog NewsRoom - 2002 Archive (File 993)

\*\*\*Dialog NewsRoom - 2001 Archive (File 994)

\*\*\*Dialog NewsRoom - 2000 Archive (File 995)

\*\*\*TRADEMARKSCAN-Finland (File 679)

\*\*\*TRADEMARKSCAN-Norway (File 678)

\*\*\*TRADEMARKSCAN-Sweden (File 675)

\*\*\*

# UPDATING RESUMED

\*\*\*Delphes European Business (File 481)

\*\*\*

## RELOADED

\*\*\*U.S. Patents Fulltext 1976-current (File 654)

\*\*\*Population Demographics (File 581)

\*\*\*Kompas Western Europe (File 590)

\*\*\*D&B - Dun's Market Identifiers (File 516)

\*\*\*CANCERLIT (File 159)

\*\*\*TOXFILE (File 156)

## REMOVED

\*\*\*Chicago Tribune (File 632)

\*\*\*Fort Lauderdale Sun Sentinel (File 497)

\*\*\*The Orlando Sentinel (File 705)

\*\*\*Newport News Daily Press (File 747)

\*\*\*U.S. Patents Fulltext 1980-1989 (File 653)

\*\*\*Washington Post (File 146)

\*\*\*Books in Print (File 470)

\*\*\*Court Filings (File 793)

\*\*\*Microcomputer Software Guide Online (File 278)

\*\*\*Publishers, Distributors & Wholesalers of the U.S. (File 450)

\*\*\*State Tax Today (File 791)

\*\*\*Tax Notes Today (File 790)

\*\*\*Worldwide Tax Daily (File 792)

\*\*\*New document supplier\*\*\*

IMED has been changed to INFOTRIE (see HELP OINFOTRI)

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<

>>> of new databases, price changes, etc. <<<

\*\*\*\*

KWIC is set to 50.

HIGHLIGHT set on as '\*'

\*\*\*

\*\*\*

File 1:ERIC 1966-2002/Aug 08

(c) format only 2002 The Dialog Corporation

Set Items Description

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Cost is in DialUnits

?b 434, 5, 155

27aug02 09:39:02 User259980 Session D216.1

\$0.35 0.099 DialUnits File1

\$0.35 Estimated cost File1

\$0.03 TELNET

\$0.38 Estimated cost this search

\$0.38 Estimated total session cost 0.099 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

(c) 1998 Inst for Sci Info

File 5:Biosis Previews(R) 1969-2002/Aug W3

(c) 2002 BIOSIS

\*File 5: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.

File 155:MEDLINE(R) 1966-2002/Aug W3

\*File 155: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.

Set Items Description

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?s microorganism(10n)(glutamate or glutamic)

54160 MICROORGANISM

124357 GLUTAMATE

57741 GLUTAMIC

S1 39 MICROORGANISM(10N)(GLUTAMATE OR GLUTAMIC)

?s s19s)(produc? or prepar? or make)

0 S19S) (PRODUC?  
 843743 PREPAR?  
 0 MAKE)  
 S2 843743 S19S) (PRODUC? OR PREPAR? OR MAKE)  
 ?s s1(s) (produc? or prepar? or make)  
 39 S1  
 2662723 PRODUC?  
 843743 PREPAR?  
 150740 MAKE  
 S3 16 S1(S) (PRODUC? OR PREPAR? OR MAKE)  
 ?s s3(s) (ph or acidic)  
 16 S3  
 1862092 PH  
 109356 ACIDIC  
 S4 4 S3(S) (PH OR ACIDIC)  
 ?rd  
 ...completed examining records  
 S5 3 RD (unique items)  
 ?t/9/all

5/9/1 (Item 1 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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10624666 BIOSIS NO.: 199699245811  
 Stereospecific production of the herbicide phosphinothricin (Glufosinate):  
 Purification of aspartate transaminase from *Bacillus stearothermophilus*,  
 cloning of the corresponding gene, aspC, and application in a coupled  
 transaminase process.  
 AUTHOR: Bartsch Klaus(a); Schneider Rudolf; Schulz Arno  
 AUTHOR ADDRESS: (a)Hoechst Schering AgrEvo GmbH, Werk Hochst, H 872 N,  
 D-65926 Frankfurt\*\*Germany  
 JOURNAL: Applied and Environmental Microbiology 62 (10):p3794-3799 1996  
 ISSN: 0099-2240  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: English

ABSTRACT: We have isolated and characterized an aspartate transaminase ( \*glutamate\*:oxalacetate transaminase, EC 2.6.1.1) from the thermophilic \*microorganism\* *Bacillus stearothermophilus*. The purified enzyme has a molecular mass of 40.5 kDa by sodium dodecyl sulfate gel analysis, a temperature optimum of 95 degree C, and a \*pH\* optimum of 8.0. The corresponding gene, aspC, was cloned and overexpressed in *Escherichia coli*. The recombinant glutamate:oxalacetate transaminase protein was used in immobilized form together with 4-aminobutyrate:2-ketoglutarate transaminase (EC 2.6.1.19) from *E. coli* for the \*production\* of L-phosphinothricin (L-homoalanin-4-yl-(methyl)phosphinic acid), the active ingredient of the herbicide Basta (AgrEvo GmbH), from its nonchiral 2-keto acid precursor 2-oxo-4- ((hydroxy) (methyl)phosphinoyl) butyric acid (PPO). In this new coupled process conversion rates of ca. 85% were obtained with substrate solutions containing 10% PPO by using only slight excesses of the amino donors glutamate and aspartate. The contamination of the reaction broth with amino acid by-\*products\* was 1t 3%.

REGISTRY NUMBERS: 35597-44-5: PHOSPHINOTHRICIN; 51276-47-2: GLUFOSINATE;  
 9000-97-9: ASPARTATE TRANSAMINASE; 9031-66-7: TRANSAMINASE; 9000-97-9:  
 EC 2.6.1.1

#### DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Bioprocess  
 Engineering; Enzymology (Biochemistry and Molecular Biophysics);  
 Metabolism; Methods and Techniques; Molecular Genetics (Biochemistry  
 and Molecular Biophysics); Pest Assessment Control and Management;  
 Physiology  
 CHEMICALS & BIOCHEMICALS: PHOSPHINOTHRICIN; GLUFOSINATE; ASPARTATE  
 TRANSAMINASE; TRANSAMINASE; EC 2.6.1.1  
 MOLECULAR SEQUENCE DATABANK NUMBER: amino acid sequence; molecular sequence  
 data; nucleotide sequence  
 MISCELLANEOUS TERMS: AMINO DONORS; ASPARTATE TRANSAMINASE; BIOPROCESS  
 ENGINEERING; BIOTECHNOLOGY; COUPLED TRANSAMINASE PROCESS; EC 2.6.1.1;

ENZYME TEMPERATURE/PH OPTIMA; ENZYMOLOGY; GENE CLONING; GENETIC  
ENGINEERING; GLUFOSINATE; HERBICIDE; MISCELLANEOUS METHOD; MOLECULAR  
GENETICS; PESTICIDES; PHOSPHINOTHRICIN; PURIFICATION; REACTION BROTH;  
STEREOSPECIFIC PRODUCTION; SYNTHETIC METHOD

CONCEPT CODES:

10010 Comparative Biochemistry, General  
10050 Biochemical Methods-General  
10060 Biochemical Studies-General  
10062 Biochemical Studies-Nucleic Acids, Purines and Pyrimidines  
10064 Biochemical Studies-Proteins, Peptides and Amino Acids  
10300 Replication, Transcription, Translation  
10506 Biophysics-Molecular Properties and Macromolecules  
10618 External Effects-Temperature as a Primary Variable-Hot (1971- )  
10802 Enzymes-General and Comparative Studies; Coenzymes  
10804 Enzymes-Methods  
10806 Enzymes-Chemical and Physical  
13002 Metabolism-General Metabolism; Metabolic Pathways  
13012 Metabolism-Proteins, Peptides and Amino Acids  
39007 Food and Industrial Microbiology-Biosynthesis, Bioassay and  
Fermentation  
52518 Agronomy-Weed Control  
54600 Pest Control, General; Pesticides; Herbicides

5/9/2 (Item 2 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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07794314 BIOSIS NO.: 000092086885

PRODUCTION OF YEAST STARTER FOR SWEET SORGHUM SILAGE

AUTHOR: KIUCHI K; MORIE K

AUTHOR ADDRESS: NATL. FOOD RES. INST., MINISTRY AGRIC., FORESTRY FISHERIES,  
TSUKUBA, IBARAKI 305, JPN.

JOURNAL: REP NATL FOOD RES INST 0 (55). 1991. 24-30. 1991

FULL JOURNAL NAME: Report of National Food Research Institute

CODEN: SSKKC

RECORD TYPE: Abstract

LANGUAGE: JAPANESE

ABSTRACT: In order to utilize yeast strains for a sweet sorghum (Sorghum  
bicolor) silage starters, cultural conditions of several strains which  
were isolated from 42 silages and showed good growth in sweet sorghum  
juice were investigated. Six among selected seven strains \*produced\*  
pyruvate, and only one strains \*produced\* lactic acid. The optimum  
temperature and optimum \*pH\* for the growth were in the ranges of 30  
.apprx. 40.degree. C and 3.0 to 4.0, respectively. In most effective  
nitrogen sources, polypeptone was especially effective for 3 strains in  
the seven and yeast extract very effective for two strains, when total  
nitrogen in the media was adjusted to 0.1%. The optimum carbon/nitrogen  
ratio in the medium for growth was 40 to 200 depending on the strains,  
four yeast strains were examined as sweet sorghum silage starter, and one  
of them showed a different temperature curve. Four strains tested for  
silage starters were identified to be Candida guilliermondii (Castellani)  
Langeron et Guerra, Candidakrusei (Castellani) Berkhout, Candida  
castellii (Capriotti) Meyer er Yarrow, Pichia membranaefaciens Hansen,  
respectively. These yeasts could be preserved by lyophilization excepting  
a mutant of P. membranaefaciens. Large scale culture of PD4-2 (51) was  
lyophilized with 10% volume of the mixture of skim milk and sodium  
\*glutamate\* (9:1). The success in lyophilization of \*microorganism\* made  
it possible that their long term preservation and transport to stock  
farms and manufacturing silages at the appropriate time.

DESCRIPTORS: SORGHUM-BICOLOR CROP PLANT CANDIDA-CASTELLII

CANDIDA-GUILLIERMONDII PICHIA-MEMBRANAEFACIENS MICROORGANISM FUNGUS

FERMENTATION FOOD PROCESSING FEED INDUSTRY

CONCEPT CODES:

02504 Cytology and Cytochemistry-Plant  
13512 Food Technology-Malts, Brews and Other Fermentation Products  
13530 Food Technology-Evaluations of Physical and Chemical Properties  
(1970- )  
13532 Food Technology-Preparation, Processing and Storage (1970- )

26504 Animal Production-Feeds and Feeding  
39003 Food and Industrial Microbiology-Food and Beverage Fermentation  
(1970- )  
52506 Agronomy-Forage Crops and Fodder

BIOSYSTEMATIC CODES:

15100 Ascomycetes  
15500 Fungi Imperfecti or Deuteromycetes  
25305 Gramineae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

Microorganisms  
Plants  
Nonvascular Plants  
Fungi  
Vascular Plants  
Spermatophytes  
Angiosperms  
Monocots

5/9/3 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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06104378 BIOSIS NO.: 000085067527

CHARACTERISTICS OF GLUTAMATE DEHYDROGENASE IN GLUTAMIC ACID FERMENTATION BY  
BREVI BACTERIUM-SP

AUTHOR: JE K H; LEE K H

AUTHOR ADDRESS: DEP. FOOD SCI. AND TECHNOL., COLL. AGRIC., SEOUL NATL.  
UNIV.

JOURNAL: AGRIC RES SEOUL NATL UNIV 12 (1). 1987. 35-44. 1987

FULL JOURNAL NAME: Agricultural Research Seoul National University

CODEN: NYSTD

RECORD TYPE: Abstract

LANGUAGE: KOREAN

ABSTRACT: This experiment had been carried out to examine the activity changes of glutamate dehydrogenase (GDH) in L-glutamic acid fermentation, and to investigate the enzyme kinetics of GDH in the forward reaction and backward reaction. The used \*microorganism\* was Brevibacterium sp, which was l-\*glutamate\* \*producing\* strain. The activity changes of GDH during the culture were similar to the cell growth pattern in the biotin-sufficient media. The initial rate of backward reaction was 15 times faster than that of forward reaction. The activity of GDH was recovered by feeding additional sugar about 4 hours later in the biotin-sufficient RCM media. The optimum \*pH\* of GDH was 9.0 when the reaction was forward and 7.5 when it was backward reaction. The optimum temperature of GDH activity was 35.degree. C. In case of backward reaction, Michaelis constant was 2.25 .times. 10-3 M and Vmax value was 2.5 0.D/mg protien min. In case of forward reaction, Km value was 4.55 .times. 10-1 M and Vmax value was 2.0 0.D/mg. protein min. Km value of forward reaction was 200 times higher than that of backward reaction. This result suggested that the rate of converting substrate (L-GA) to \*product\* (.alpha.-KG) is considerably slow.

DESCRIPTORS: CELL GROWTH SUGAR ENZYME ACTIVITY

CONCEPT CODES:

10806 Enzymes-Chemical and Physical  
10808 Enzymes-Physiological Studies  
13012 Metabolism-Proteins, Peptides and Amino Acids  
13220 Nutrition-Carbohydrates (1972- )  
31000 Physiology and Biochemistry of Bacteria  
39003 Food and Industrial Microbiology-Food and Beverage Fermentation  
(1970- )  
10064 Biochemical Studies-Proteins, Peptides and Amino Acids  
10068 Biochemical Studies-Carbohydrates

BIOSYSTEMATIC CODES:

05814 Coryneform Group of Bacteria (1979- )

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

Microorganisms  
Bacteria

?ds

Set	Items	Description
S1	39	MICROORGANISM(10N) (GLUTAMATE OR GLUTAMIC)
S2	843743	S19S) (PRODUC? OR PREPAR? OR MAKE)
S3	16	S1(S) (PRODUC? OR PREPAR? OR MAKE)
S4	4	S3(S) (PH OR ACIDIC)
S5	3	RD (unique items)

?logoff

```

27aug02 09:41:37 User259980 Session D216.2
$2.01 0.117 DialUnits File434
$2.01 Estimated cost File434
$2.85 0.508 DialUnits File5
$5.25 3 Type(s) in Format 9
$5.25 3 Types
$8.10 Estimated cost File5
$1.49 0.464 DialUnits File155
$1.49 Estimated cost File155
OneSearch, 3 files, 1.090 DialUnits FileOS
$0.65 TELNET
$12.25 Estimated cost this search
$12.63 Estimated total session cost 1.189 DialUnits

```

### Status: Signed Off. (3 minutes)